

ABSTRACT

A system and method for creating run time executables in a configurable processing element array is disclosed. This system and method includes the
5 step of partitioning a processing element array into a number of defined sets of hardware accelerators, which in one embodiment are processing elements called "bins". The system and method then involves decomposing a program description in object code form into a plurality of "kernel sections", where the kernel sections are defined as those sections of object code which are
10 candidates for hardware acceleration. Next, mapping the identified kernel sections into a number of hardware dependent designs is performed. Finally, a matrix of the bins and the designs is formed for use by the run time system.